

REMARKS

Claims 1-20 were originally filed in the present application.

Claims 1-20 are pending in the present application.

Claims 1-20 were rejected in the June 16, 2008 Office Action.

No claims have been allowed.

Claims 1-20 remain in the present application.

Reconsideration of the claims is respectfully requested.

In Section 4 of the June 16, 2008 Office Action, the Examiner rejected Claims 1-3, 8-10, 15-16 and 20 under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent Publication No. 2002/0122395 to *Bourlas, et al.* (hereafter, simply “Bourlas”) in view of U. S. Patent Publication No. 2004/0057461 to *Dawidownsky, et al.* (hereafter, simply “Dawidownsky”).

In Section 5 of the June 16, 2008 Office Action, the Examiner rejected Claims 4-7, 11-14 and 17-19 under 35 U.S.C. §103(a) as being unpatentable over the Bourlas reference in view of Dawidownsky and further in view of U. S. Patent No. 6,842,437 to *Heath* (hereafter, simply “Heath”).

The Applicant respectfully disagrees and traverses the §103 rejections. The Applicant directs the Examiner’s attention to independent Claim 1, which recites the unique and novel elements, including those emphasized below:

1. For use in a point-to-multipoint wireless network, a base station for transmitting downstream data packets in a downstream traffic channel to customer premises equipment (CPE) devices and receiving upstream data packets in an upstream traffic channel from said CPE devices,

wherein said base station is capable of:

for each of a plurality of said CPE devices, establishing a plurality of associated queues;

receiving a link management message from a first one of said plurality of CPE devices, the link management message requesting a change in bandwidth allocation for an identified queue associated with said first CPE device, wherein said link management message is associated with a wireless media access control (MAC) layer protocol; and

in response to said link management message, *re-allocating bandwidth from a first queue associated with said first CPE device to a second queue.* [Emphasis Added]

Claim 1 comprises the element “establishing a plurality of as associated queues.” This element is not anticipated, taught, or suggested in the prior art of record. The Examiner attempts to analogize this element with Bourlas. However, Bourlas teaches that **CPE** devices establish queues, and does **not** teach that the **base station** establishes a plurality of queues. Bourlas notes this in [0064]:

[0064] The uplink bandwidth module 507 receives bandwidth request from Cape's 110 and allocates the available uplink sub-frame among the received requests. Uplink bandwidth allocation is very similar to downlink bandwidth allocation (discussed below in reference to the prioritize module 602). *The data queues, however, reside distributed across the individual CPE's 110.* Rather than check the queue status directly, the MAC 420 receives requests for bandwidth from the CPE's 110. Using these requests, the MAC 420 reconstructs a logical picture of the state of the queues. Based on this logical view of the set of queues, the MAC 420 allocates uplink bandwidth in a similar way as it allocates downlink bandwidth. The bandwidth allocated to a particular CPE 110, however, is sent in the form of a bandwidth allocation in an

uplink map. The uplink map allocates a certain amount of bandwidth to a particular CPE 110, starting at a certain point in the next time frame. *The particular CPE 110 then allocates this bandwidth across its connections. Due to the dynamic nature of bandwidth allocation, the allocations are constantly changing, such that a CPE 110 may receive unsolicited modifications to the bandwidth granted on a frame by frame basis.* If a CPE is allocated less bandwidth for a frame than is necessary to transmit all waiting data, the particular CPE 110 must use its' QoS and fairness algorithms to service its queues. In addition, the particular CPE 110 may steal bandwidth from lower QoS connections to piggyback a request for more bandwidth. [Emphasis Added]

The structure of Bourlas requires that each CPE create, maintain, and control it's own queue. In contrast, the present disclosure allows a base station to establish "a plurality of associated queues." Therefore, Bourlas does not teach, suggest, or anticipate a base station that "establishes a plurality of associated queues." It is respectfully submitted that *Dawidownsky* does not cure this deficiency.

In addition, none of the prior art of record teaches, suggests, or anticipates allocating *bandwidth from a first queue associated with said first CPE device to a second queue.* The Examiner concedes that Bourlas does not teach, suggest, or anticipate this limitation. (Office Action dated June 16, 2008, page 3 ll. 11-13). The Examiner attempts to cure this deficiency through *Dawidownsky*. The examiner cites paragraph [0007]-[0008] of *Dawidownsky*, noting that it teaches "reallocation to a connection".

Applicant respectfully disagrees with the analogy that a reallocation to a connection is the same as allocating *bandwidth from a first queue associated with said first CPE device to a second queue.* *Dawidownsky* relates to the allocation of a **connection** not to the reallocation of a **queue**. It

is respectfully submitted that nowhere does Dawidownsky teach reallocating bandwidth from a first queue to a second queue. Dawidownsky only discloses a **single queue**. Since Dawidownsky only contemplates a single queue (e.g. transmit queue) it does not teach, suggest, or anticipate allocating *bandwidth from a first queue associated with said first CPE device to a second queue*.

For at least these reasons, amended independent Claim 1 is patentable over the cited references. Amended independent Claims 8, 15 and 20 recite analogous limitations to the novel and non-obvious limitations emphasized in traversing the rejection of Claim 1. Therefore, Claims 8, 15 and 20 also are patentable over the cited references. Claims 2-7, 9-14 and 16-19 depend from Claims 1, 8 and 15, respectively, and include all the limitations of their respective base claims. As such, Claims 2-7, 9-14 and 16-19 also are patentable over the cited references.

The Applicant also disagrees with the Examiner's rejections of Claims 1-20 based on additional misdescriptions and/or misapplications of the Bourlas, Dawidownsky, and Heath references to at least some of Claims 1-20. However, the Applicant's arguments regarding those other shortcomings of the Bourlas, Dawidownsky, and Heath references are moot in view of the Claim 1 arguments above. However, the Applicant reserves the right to dispute in future Office Action responses the appropriateness and the applications of the Bourlas, Dawidownsky, and Heath references to the claims of the present application, including the right to dispute assertions made by the Examiner in the June 16, 2008 Office Action.

SUMMARY

For the reasons given above, the Applicant respectfully requests reconsideration and allowance of the pending claims and that this application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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